CONTIGUOUSLY FORMED VALVE CAGE WITH A MULTIDIRECTIONAL FLUID PATH

Abstract

A control valve is disclosed and which comprises a valve body having an inlet, an outlet, and a flow passage extending between the inlet and the outlet, a seat ring mounted in the flow passage, a valve plug shiftably mounted within the valve body for movement between a first position and a second position, the valve plug cooperating with the seat ring to close the flow passage when the valve plug is in the first position and a valve plug actuator for moving the valve plug between the first position and the second position. A valve cage is mounted to the seat ring and comprises a contiguously formed sidewall having an inner surface and an outer surface and surrounding a bore sized to receive the valve plug, a plurality of first apertures defined in the inner surface of the sidewall, a plurality of second apertures defined in the outer surface of the sidewall, and a plurality of multidirectional fluid passages, each one of the multidirectional fluid passages extending between one of the first apertures and at least one the second apertures and wherein at least one of the multidirectional fluid passages is disposed in the flow passage when the valve plug is in the second position.